

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

Claims 1-12 (canceled)

13. (New) An extendible exhaust nozzle bell for a rocket engine of one of an aircraft and spacecraft comprising:

a first part, having a quasi-conical shape, fixedly arranged on a motor of the rocket engine;

a second, having a quasi-conical shape with a greater diameter than the first part, arranged in a flexible manner with respect to the first part;

the second part having a stowed position in which the second part surrounds the first part and is positioned closer to the motor, and an operating position in which the first part and the second part form a continuous shape and the second part is arranged farther from the motor; and

an extension mechanism structured and arranged to extend the second part from the stowed position to the operating position, the extension mechanism comprising a plurality of swiveling extension arms distributed over a circumference of the first part, and coupled between the first part and the second part, wherein the extension arms have first and second ends, such that the first

ends are hingedly connected to a support structure provided on an outside of the first part; and

wherein the second ends are displaceably arranged with respect to an inside of the second part and configured to be swivelable while reducing a radial distance of the second ends to the first part.

14. (New) The exhaust nozzle bell according to claim 13, wherein the second part is extended in a direction of the operating position during swiveling of the extension arms to the first part,

wherein the second ends of the extension arms follow the quasi-conical shape of the second part.

15. (New) The exhaust nozzle bell according to claim 13, wherein the extension arms comprise one of a sliding and rolling element on an end facing the second part,

wherein the sliding and rolling element is structured and arranged for a sliding or rolling movement with respect to an inside of the second part while swiveling the extension arms during the extension of the second part.

16. (New) The exhaust nozzle bell according to claim 13, wherein the extension arms are supported on the first end about a hinged axle arranged in a

circumferential direction of the exhaust nozzle bell and are configured to be swiveled in a radial plane containing a longitudinal axis of the rocket engine.

17. (New) The exhaust nozzle bell according to claim 13, further comprising:

a first activating device, coupled with the extension arms, structured and arranged for swiveling the extension arms; and

a second activating device, coupled with the second part, structured and arranged to move the exhaust nozzle bell in the longitudinal direction of the rocket engine from the stowed position into the operating position.

18. (New) The exhaust nozzle bell according to claim 17, wherein the first activating device contains an actuator and a transport screw driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm to change an effective length.

19. (New) The exhaust nozzle bell according to claim 17, wherein the first activating device contains an actuator and a tension cable driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm, and a spring-loaded device acting against a tension of the tension cable on the extension arm.

20. (New) The exhaust nozzle bell according to claim 17, wherein the second activating device contains an actuator, a rope drum driven by the actuator, and a tension cable, the tension cable being wound on the rope drum and coupled with the second part.

21. (New) The exhaust nozzle bell according to claim 17, wherein at least one of the first and second activating devices comprises a pivoted collecting ring surrounding the first part in the circumferential direction that can be driven by an actuator for a rotation of the collection ring, and tension cables positioned around the collecting ring, the tension cables having a changeable effective length during the rotation of the collecting ring, and which are coupled with the extension arms or the second part.

22. (New) The exhaust nozzle bell according to claim 21, wherein the collecting ring further comprises a central drive.

23. (New) The exhaust nozzle bell according to claim 13, wherein the extension arms are configured as triangular guides tapering from a first end towards a second end.

24. (New) The exhaust nozzle bell according to claim 13, wherein guide devices structured and arranged for a longitudinal guiding of the second part on a

last part of an extension movement from the stowed position into the operating position are coupled between the first part and the second part.

25. (New) The exhaust nozzle bell according to claim 24, wherein the guide devices comprise one of guide rollers and sliders mounted on a front end of the second part and guide rails mounted on a support structure on the first part to accept and guide one of the guide rollers and sliders.

26. (New) An exhaust nozzle bell for a rocket engine comprising:

a first part fixedly arranged on a motor of the rocket engine;

a second part displaceably coupled to the first part;

the second part having a stowed position in which the second part surrounds the first part and is positioned closer to the motor, and an operating position in which the first part and the second part form a continuous shape and the second part is arranged farther from the motor; and

an extension mechanism structured and arranged to extend the second part from the stowed position to the operating position, the extension mechanism comprising a plurality of swiveling extension arms, wherein the extension arms have first and second ends,

wherein each of the extension arms comprise one of a sliding and rolling element on an end facing the second part, and the sliding and rolling element is

structured and arranged for a sliding or rolling movement with respect to an inside of the second part.

27. (New) The exhaust nozzle bell according to claim 26, wherein the extension arms are supported on a first end about a hinged axle arranged in a circumferential direction and are configured to be swiveled in a radial plane containing a longitudinal axis of the rocket engine.

28. (New) The exhaust nozzle bell according to claim 26, further comprising:

a first activating device, coupled with the extension arms, structured and arranged for swiveling the extension arms; and

a second activating device, coupled with the second part, structured and arranged to move the exhaust nozzle bell in the longitudinal direction of the rocket engine from the stowed position into the operating position.

29. (New) The exhaust nozzle bell according to claim 28, wherein the first activating device contains an actuator and a transport screw driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm to change an effective length.

30. (New) The exhaust nozzle bell according to claim 28, wherein the first activating device contains an actuator and a tension cable driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm, and a spring-loaded device acting against a tension of the tension cable on the extension arm.

31. (New) The exhaust nozzle bell according to claim 28, wherein the second activating device contains an actuator, a rope drum driven by the actuator, and a tension cable, the tension cable being wound on the rope drum and coupled with the second part.

32. (New) The exhaust nozzle bell according to claim 28, wherein at least one of the first and second activating devices comprises a pivoted collecting ring surrounding the first part in the circumferential direction that can be driven by an actuator for a rotation of the collection ring, and tension cables positioned around the collecting ring, the tension cables having a changeable effective length during the rotation of the collecting ring, and which are coupled with the extension arms or the second part.

33. (New) The exhaust nozzle bell according to claim 32, wherein the collecting ring further comprises a central drive.

34. (New) The exhaust nozzle bell according to claim 26, wherein the extension arms are configured as triangular guides tapering from a first end towards a second end.

35. (New) The exhaust nozzle bell according to claim 26, wherein guide devices structured and arranged for a longitudinal guiding of the second part on a last part of an extension movement from the stowed position into the operating position are coupled between the first part and the second part.

36. (New) The exhaust nozzle bell according to claim 35, wherein the guide devices comprise one of guide rollers and sliders mounted on a front end of the second part and guide rails mounted on a support structure on the first part to accept and guide one of the guide rollers and sliders.